



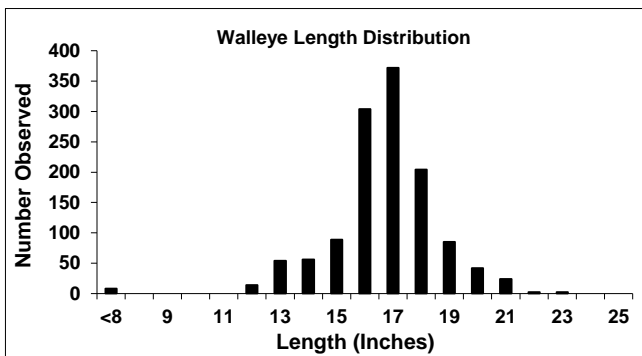
WISCONSIN DNR FISHERIES INFORMATION SHEET

LAKE: Butternut Lake

COUNTY: FOREST

YEAR: 2014

The Wisconsin Department of Natural Resources, with help from the USFS, is conducting a comprehensive survey of Butternut Lake, Forest County, to analyze the health of its fishery. Butternut Lake is located east of Eagle River just a few miles south of HWY 70. Butternut Lake covers 1,292 acres and achieves a maximum depth of 42 feet.



* Note: Adult walleye are defined as all sexable walleye and walleye of unknown sex ≥ 15 inches long.

Walleye



A mark-recapture survey of Butternut Lake's adult walleye population was conducted from 5/10-5/12/2014. During this survey a total of 1,059 different adult walleye were captured via fyke nets and marked with an identifiable fin clip. On 5/12 the entire shoreline of Butternut Lake, including islands, was electrofished. During this electrofishing survey a total of 343 adult walleye were captured, 78 of which (22.7%) bore the clip given during our netting survey. This data estimates the adult walleye population in Butternut Lake to be approximately 3,491 fish (2.7/acre).

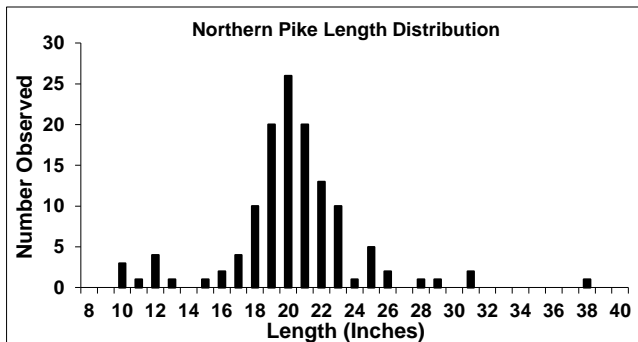
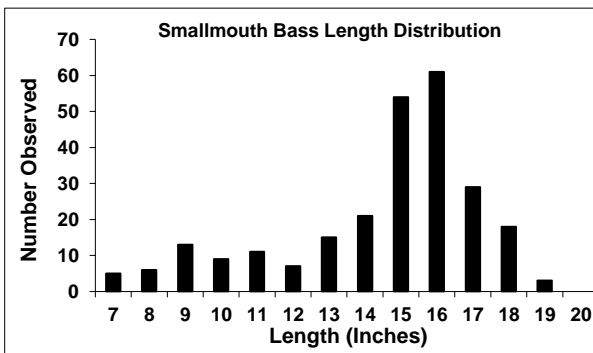
Walleye size structure in Butternut Lake is good with approximately 90.1% of the walleye captured being ≥ 15.0 inches and 28.8% larger than the restricted slot (14-18 inches). The largest walleye captured was a 23.4-inch female.

Smallmouth Bass



Smallmouth bass were assessed on the night of 6/3 via electrofishing. The entire shoreline (including islands) was sampled totaling 9.9 miles. A total of 248 smallmouth bass (243 adults) and 2 adult largemouth bass were captured during this survey. At a relative abundance of 24.5 adult smallmouth bass per mile, the Butternut Lake population is considered abundant. Largemouth bass are a background species in Butternut Lake and are considered rare.

A total of 252 different smallmouth bass were measured during spring surveys to assess size structure. The Butternut Lake population has impressive size structure with 86.9% and 44.0% of the fish sampled being ≥ 14.0 and 16.0 inches in length.



Northern Pike



A mark-recapture survey of the northern pike population was not conducted due to low catch rates during our spring netting survey (7.0 pike/net-lift). The catch rate of northern pike during our spring survey suggests that this northern pike population is slightly above the average abundance for this region (5.59 pike/net-lift). A total of 128 different northern pike were captured and measured to assess size structure.

Size structure of northern pike is slightly below average in Butternut Lake with 47.1% and 4.2% of the pike sampled being ≥ 21.0 and 28.0 inches respectively. The largest pike captured during our survey was a 38.5-inch female.

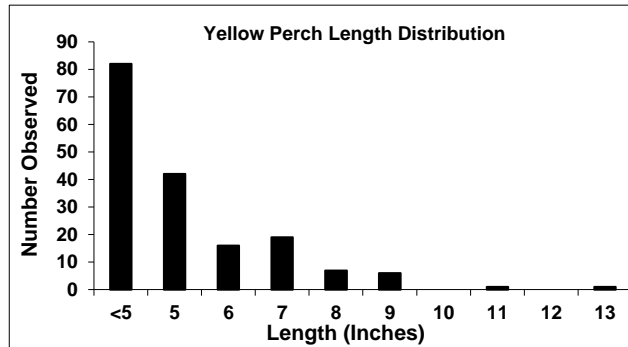
Yellow Perch



Yellow perch were quite rare during our spring fyke net survey, with a catch rate of 0.4 perch per net-lift. However, the emphasis of our spring survey was to assess the walleye population and the nets were not set in areas that are conducive to yellow perch spawning.

During our electrofishing surveys on 5/12 and 6/3 we witnessed a much larger population of yellow perch. A total of 174 yellow perch captured during spring netting and electrofishing surveys were measured to assess size structure.

Size structure of yellow perch in Butternut Lake appears to be moderate with 16.3% and 2.2% of the fish captured over 5 inches being ≥ 8.0 and 10.0 inches respectively. The largest yellow perch sampled was a 13.7-inch female.



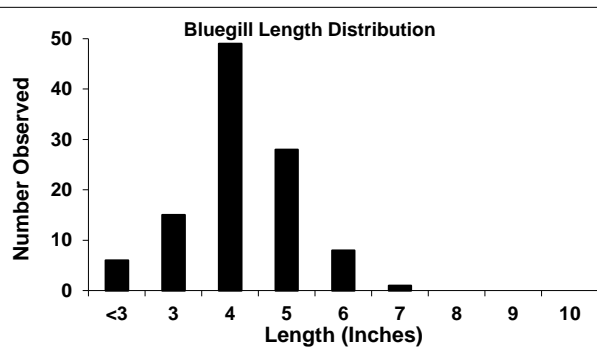
Bluegill



Butternut Lake has limited habitat for "non-perch" panfish species. However, bluegill appear to be the 2nd most abundant panfish species in Butternut Lake.

Two panfish index stations were set up to assess "non-perch" panfish in areas where habitat was suitable. A total of 107 bluegill were captured from these stations (48.6/mile). However, outside of these two stations bluegill were quite rare, and are of low abundance in Butternut Lake.

All 107 bluegill captured during our panfish survey were measured to assess size structure. The size structure of this population is poor with 8.9% and 1.0% of the fish sampled being ≥ 6.0 and 7.0 inches respectively.

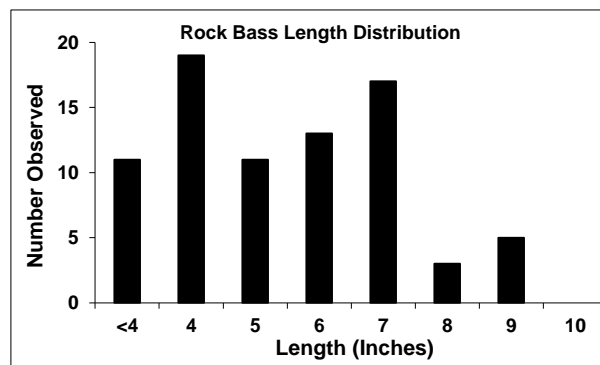


Rock Bass



Rock bass are the 3rd most abundant panfish species in Butternut Lake with a relative abundance of 35.9 fish per mile within our panfish index stations.

The size structure of the rock bass population in Butternut Lake is pretty good with 36.8% and 7.4% of the fish larger than 4 inches being ≥ 7.0 and 9.0 inches respectively.



Other Species

Pumpkinseed were captured at a rate of 8.6 fish/mile within our panfish index stations. Black crappie are present, but incredibly rare, with only 2 fish captured during all spring surveys. White sucker and golden shiner were captured during our spring fyke net survey and are likely important forage fishes for gamefish in Butternut Lake.

This report is interim only; data and findings should not be considered final.
For answers to questions about fisheries management activities and plans for Butternut Lake contact:

Greg Matzke, Fisheries Biologist
Wisconsin Department of Natural Resources
(715) 528-4400 Ext: 122 Email: Gregory.Matzke@Wisconsin.gov